

## REMARKS

Applicant respectfully requests reconsideration in view of the foregoing amendments and the remarks hereinbelow.

In the Office Action dated March 16, 2004, the following objections/rejections were made:

Objection to the use of “objective function” in the Summary of Invention;  
Claims 1, 14: Objection to form with respect to the phrase “stopping criteria”;  
Claims 1-26: Objection under Section 101 (nonstatutory subject matter);  
Claims 6, 19, 29, 38: Rejection under Section 112(1) (lack of enablement);  
Claims 1, 6, 13, 14, 19, 26, 27, 29, 35, 36, 38, 44: Rejection under Section 112(2);  
Claims 1, 12-14, 25-26: Rejection under Section 102(b) citing Press et al., *Numerical Recipes in C*, ©1992, Cambridge University Press (*Press*);  
Claims 1, 3-6, 9, 11-13, 14, 16-19, 22 and 24-26: Rejection under Section 102(b) citing Snyder et al., *Optimal Thresholding – A New Approach*, Pattern Recognition Letters (*Snyder*);  
Claims 27-32, 34, 35, 36-41 and 43-44: Rejection under Section 103(a) citing *Snyder* in view of Neves et al., *A Study of a Non-Linear Optimization Problem Using a Distributed Genetic Algorithm*, International Conference on Parallel Processing, 1996 (*Neves*);  
Claims 10, 23: Rejection under Section 103(a) citing *Snyder* in view of Levine, *Statistics for Managers Using Microsoft Excel: Chapter 14 – Multiple Regression Models*, 1999 (*Levine*);  
Claims 33, 42: Rejection under Section 103(a) citing *Snyder* in view of *Neves* and further view of *Levine*.

### General Objection

The Examiner objected to a reference back to the term “fitting error” in the last element in both original Claims 1 and 14. Applicant has submitted herein amended Claims 1 and 14 to address this objection. In particular, the term “fitting error”, which was objected to by the Examiner, has been changed to “stopping criteria” in accordance with the Examiner’s suggestion. Additionally, Applicant has submitted an amended “Summary of Invention” section in the Specification which is responsive to the Examiner’s objection and requirement.

## Section 101 Rejection

The Examiner rejected claims 1-26 as directed to non-statutory subject matter. Applicant has submitted herein further amendments to claims 1 and 14 (the independent claims in the rejected claims set) to address the Section 101 rejection. Specifically, the submitted amendments to claim 1 and 14 involve the addition of language from claims that were not rejected under Section 101 by the Examiner. It is thus respectfully submitted that the Examiner's rejection has been overcome.

### Claim 1

Claim 1 was also rejected under Section 112(2). Accordingly, Applicant has amended Claim 1 herein to provide appropriate clarification. Additionally, the limitations from Claim 2 have been incorporated into independent Claim 1. Since Claim 2 was not otherwise objected to or rejected, claim 1 and its dependencies should now be in allowable form.

### Claim 6

The Examiner rejected Claim 6 under Section 112(1) based on the assertion that the claims contain subject matter that was not enabled in the specification. Specifically, the Examiner finds:

7. Nowhere in the specification does the applicant indicate that the objective function be defined as a vector representation of a plurality of function parameters. Instead the applicant does mention a vector referred to as a *chromosome* that represents a plurality of function parameters attributed to a collection of probability distributions (see page 23, lines 9-19 of the applicant's specification). This vector, however, is not associated with the objective function.

Applicant has rewritten Claim 6 as a sentence and added that language to the Description, and notes, in support of this change, that Claim 6 is part of the original disclosure. Claim 6, when taken in light of the rest of the specification, provides adequate enabling disclosure for one skilled in the art to practice the invention. The specification clarifies what is meant by a "vector". The specification is also clear as to what is meant by an "objective function." Hence, the claim itself, as part of the originally filed specification, provides sufficient "association" to satisfy the Section 112(1) enablement requirement.

The rejection also rejected Claim 6 under Section 112(2). It is clear from the rejection that the terminology of Claim 6 is clear and distinct. The rejection recognizes that the objective function is dependent on a plurality of function parameters and, therefore, can be defined as a vector representation of a plurality of function parameters. The embodiment of an equation for the objective function cited

by the Examiner is just one embodiment, and does not exclude other embodiments. Reliance by this rejection upon the Section 112(1) rejection is rendered inappropriate by this amendment.

Claim 6 was also rejected under sections 102(b) and 103(a) when it was dependant on the limitations of Claim 1. Since claim 6 is now dependant on claim 2, which was not subject to a 102(b) or 103(a) rejection, it is respectfully submitted that this rejection has been overcome.

#### **Claim 13**

Applicant has amended claim 13 herein in light of the Examiner's recommendation following the Examiner's rejection of Claim 13 under Section 112(2). Accordingly, it is respectfully submitted that the Examiner's rejection has been overcome.

#### **Claim 14**

In addition to the general objection and Section 101 rejection addressed by the amendments effected herein and discussed above, Claim 14 was also rejected under Section 112(2). Applicant has amended Claim 14 herein to provide further clarification. Additionally, the limitations from Claim 15 have been incorporated into independent claim 14. Since Claim 15 was not otherwise objected to or rejected, it is respectfully submitted that Claim 1 and its dependants are now in condition for allowance.

#### **Claim 19**

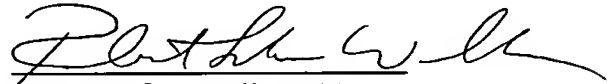
In addition to the remarks concerning the claims upon which Claim 19 depends, the remarks made with respect to Claim 6 above apply to claim 19 as well. Nevertheless, Applicant has amended this claim as suggested by the Examiner to cover another embodiment.

**Cancelled and New Claims**

Claims 27-44 have been cancelled herein in favor of New Claims 45-54, which have limitations and allowability similar to the earlier discussed claims.

It is respectfully submitted, therefore, that in view of the above amendments and remarks, that this application is now in condition for allowance, prompt notice of which is earnestly solicited.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Robert Luke Walker', written over a horizontal line.

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